

REMARKS

The Office Action dated February 27, 2003 has been received and carefully noted. The above amendments to the claims, and the following remarks, are submitted as a full and complete response thereto. Claims 1-11 are amended. No new matter is added. In view of the above amendments and the following remarks, Applicants request the favorable consideration of claims 1-11.

Figures 1-6 have been amended to be designated as Prior Art. Figure 12 has also been amended to correct the reference number for the synchronizer. As a result, Applicants request the withdrawal of the objection to the Figures.

The Title has been amended to more clearly describe the claimed invention. The Abstract of the Disclosure has also been amended to correct minor typographical errors. The specification is also amended to correct grammatical and typographical errors. No new matter is presented. Accordingly, Applicants request the withdrawal of the objection to the disclosure.

Claim 1 is objected to for containing informalities. Claim 1 is amended to more clearly recite the claimed invention. Therefore, Applicants request the withdrawal of the objection to claim 1.

The Office Action rejected claims 1-11 under 35 U.S.C. §103(a) as being unpatentable over Vos (U.S. Patent 5,363,413). The Office Action takes the position that Vos teaches or suggests all the features recited in claims 1-11. Applicants respectfully disagree.

Claim 1 is directed to a decoding method decoding multiplexed data using Viterbi decoding method, wherein the multiplexed data are composed by time division multiplexing a plurality of data streams. The multiplexed data are coded with at least a convolution code, and a coding rate and a modulation scheme are set individually for each of the data streams. The decoding method comprises the steps of measuring a strength of a noise in the multiplexed data, checking whether the strength of the noise measure is equal to or greater than a predetermined value, and initializing a path metric calculated based on the Viterbi decoding method, at a moment when decoding of one of the data streams is started, if the strength of the noise measure is equal to or greater than the predetermined value.

Claim 9 is directed to a decoder comprising a Viterbi decoder which decodes multiplexed data composed by time division multiplexing a plurality of data streams. The data coded with at least a convolution code, a coding rate and a modulation system are set individually for each of the data streams. A signal to noise ratio monitor measures a strength of a noise included in the multiplexed data. A comparison unit which checks whether the strength of the noise measured

is equal to or greater than a predetermined value. An initialization signal generation unit which outputs an initialization signal for initializing, at a moment when decoding of one of the data streams is started. A path metric calculated by the Viterbi decoder, when the initialization signal generation unit receives the notification signal.

Vos is directed to a data decoder using a dynamically indexed channel state metric. Vos further discloses a data decoder that includes a signal strength apparatus for providing a signal strength indication of the signal corresponding to symbol time period an averaging apparatus for averaging a plurality of signal strength indications to provide an average signal strength, an indexing function for generating an index value corresponding to the symbol time period and a metric function for selecting a channel metric corresponding to the index value. Vos also discloses a decision circuit for weight a decoder decisions for the symbol time period in accordance with the channel metric. In addition, Vos discloses weighing the decoder decision based on the channel metric selected, when the decoder receives a second data stream having a coding rate of a high correction ability after a first data stream having a coding rate of a low correction ability. The decoding of the second data steam is affected by the first data stream for a certain period of time. Therefore the decoding accuracy for the second data stream is decreased.

However, Vos does not teach or suggest the feature of initializing a path metric calculated based on the Viterbi decoding method, at a moment when decoding of one of the data streams is started, if the strength of the noise measure is equal to or greater than the predetermined value. In other words, the path metric is initialized at the moment when decoding of the one of the data streams is started, even if the decoder receives a second data stream having a coding rate of a high correction ability after a first data stream having a coding rate of a low correction ability. Furthermore, the decoding of the second data stream is not affected by the first data stream, and therefore the decoding accuracy of the second data stream would not be decreased. In contrast, Vos merely discloses weighing the decoder decision based on the channel metric selected when the decoder receives a second data stream having a coding rate of a high correction ability after a first data stream having a coding rate of a low correction ability. Therefore, Applicants submit that Vos neither teaches not suggests all the features recited in claims 1 and 9. Accordingly, Applicants request the withdrawal of the rejection of claims 1 and 9 under 35 U.S.C. 103(a).

Claims 2-8, 10 and 11 are dependent upon claims 1 and 9, therefore these claims likewise recite subject matter that is neither taught nor suggested by the applied prior art for at

least the reasons mentioned above. Accordingly, Applicants request the withdrawal of the rejection of claims 2-8, 10, and 11.

In view of the above amendments and distinctions discussed, withdrawal of the rejections to claims 1-11 is respectfully requested. e, Applicants submit that the application is now in condition for allowance with Claims 1-11 contained therein.

Should the Examiner believe the application is not in condition for allowance, the Examiner is invited to contact Applicant's undersigned attorney at the telephone number listed below.

In the event this paper is not considered to be timely filed, Applicants respectfully petition for an appropriate extension of time. The Commissioner is authorized to charge payment for any additional fees which may be required with respect to this paper to Counsel's Deposit Account 01-2300.

Respectfully submitted,

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Enclosure: Figures 1-12
Abstract of the Disclosure
Petition for Extension of Time